Feeding the Garden

SPRING MANURING

Manuring the garden becomes an increasingly difficult problem with the growing shortage of yard manure. The amateur seeking to maintain his soil in fertile condition must seek elsewhere than the byre and stable for the nutriment necessary for the healthy growth of his crops and plants. It is true that new forms of manures are available, put on the market with the object of replacing the farmyard and stable dung formerly used, but the absence of bulk, consisting largely of organic matter, still remains a pressing problem.

The proprietary chemical preparations employed for the purpose of converting garden rubbish, leaves, and so on to something nearly approaching yard manure are of very great value, for in most gardens the accumulation of rubbish capable of conversion into manure is very considerable. If to this is added household and kitchen waste—fish, feathers, vegetable leaves and parings, even paper—a bulk of useful material is obtained for digging in the soil.

Whatever the nature, however, of these substitutes for yard manure, none is comparable to dung in providing food for plants. They undoubtedly improve the texture of soils and, being organic, provide the necessary humus in the soil, without which most cultivated plants cannot thrive and which is the chief deficiency in chemical fertilisers. Nevertheless it has to be recognised that they are poor by comparison in actual plant nutriments, and wherever reliance is placed upon collected waste as a substitute for yard manure it is necessary to employ chemical fertilisers. By combining the two—waste from the garden and chemical fertilisers—it is possible to grow almost if not quite as good crops and plants as by yard manure alone.

There are two categories of users of artificial manures. One is the individual who knows sufficient of the character of the different fertilisers to enable him to use them intelligently and with discretion. The other is the amateur who makes no pretence of knowledge of the science of manuring and wisely pins his faith in ready-mixed fertilisers, which are sold in containers in quantities convenient for use by amateur gardeners.

Fertilisers prepared for garden use should be regarded as being more in the nature of stimulants than having any permanence in soil improvement. The time to use them is when the plants and crops are best able to make most use of their constituents, as when in active growth in spring and early summer. There are, of course, special manures, slow in action and more permanent, such as basic slag and bone meal, which are best applied to the soil some months before they are needed by the crops they suit. Mixed fertilisers, however, are best applied from spring till about the middle of July, as not only are they of maximum benefit to the crops at this time, but soil moisture, usually considerable between these months, combined with warmth, has the effect of dissolving the compounds, thus releasing them readily for use by plants. The use of mixed fertilisers after July is uneconomical and often harmful to garden plants unless in liquid form.

Yard manure and, in fact, any of the materials used in substitution for it should be dug into the land as long as possible before seed sowing and planting take place. In the further decomposition of the organic matter of which they are largely comprised plant foods are released and held in the soil for subsequent use by the plants, but with mixed fertilisers the constituents are readily dissolved and, unless taken up by the plants, are soon washed away from the reach of the roots and thereby lost.

Assuming the soil to be furnished plentifully with organic manures, these mixed fertilisers, used at the rate of about one ounce per square yard when sowing seeds and further sprinklings of half an ounce per square yard to be given to growing plants in May, June, and, if thought necessary, again in early July, will provide sufficient food for the needs of practically all plants and crops.

Lime

An urgent matter connected with spring manuring is the adequate provision of lime. Without this no system of manuring is complete, nor can the general run of garden plants thrive in soil in which lime is deficient. It is necessary to emphasise this point repeatedly, for there is no doubt that many garden problems arise from an acid condition of the soil.

Lime improves the texture of heavy soil, making it easier to work in the spring; it corrects sourness by helping to neutralise the acids, which are comparable to plant poisons. Lime also has the effect of reducing harmful insects and fungus diseases of plants, and its use discourages the growth of troublesome weeds; but from the sole point of manuring the chief function of lime in gardening is that it ensures that the fertilisers and manures used, particularly those organic, are made available for use by plants to the greatest possible extent.

Owing to the natural and constant wastage of lime, garden soil often becomes depleted without warning. It should not be forgotten that water passing through the soil, as in rainy weather, carries with it considerable quantities of lime; also in the functioning of manures and fertilisers lime is used up, in some cases heavily, as, for instance, sulphate of ammonia, which destroys its own weight of lime when undergoing its various chemical changes in the soil. In fact, the use of some fertilisers definitely lowers the crop-producing capacity of the soil in conditions of sourness. A further depletion of lime occurs with every growing plant, for lime is itself an essential plant food taken from the soil.

Wastage of lime must, therefore, be made good by regular applications. It does not help matters to give a single heavy dressing at long intervals, owing to natural losses, which are in proportion to the quantity of lime present in the soil. The most economical method to adopt is to scatter it in powdered condition on the surface of dug land, during February, at the rate of four ounces to six ounces per square yard every two years.

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